

# Alekha Rao

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## Education

### Tufts University

Medford, MA. USA

Bachelors of Science in Engineering: Computer Science

2026

Minors in Mathematics and Economics

GPA: 3.81/4

Relevant Coursework: Software Engineering, Intro to Machine Learning, Algorithms, Machine Structures and Assembly Language Programming, Data Structures, Computer Science in C++, Web Programming, Reinforcement Learning

## Experience

### Software Engineering Intern

London, United Kingdom

Millenium

June 2025 - Present

- Working on the Fixed Income and Risk Management team to develop trading infrastructure and monitoring tools.
- Automating workflows in AWS and contributing to enhancements in electronic trading systems.
- Implementing the firms systems through dynamic coding and QA assignments.
- Performing dynamic coding and QA testing to enhance firm-wide trading systems.

### Machine Learning Fellow

Cambridge, MA

Break Through Tech MIT

May 2025 - Present

- Selected for Break Through Tech AI at MIT, a 12-month program focused on applied machine learning and AI.
- Completing technical training and collaborating with industry partners on real-world AI projects.
- Receiving mentorship and career coaching to support growth in data science and AI.

### Software Developer

Medford, MA

Tufts JumboCode

September 2024 - May 2025

- Collaborated with a team of 10 to develop and launch a web application using React, Next.js, and TypeScript, with MongoDB for backend support.
- Helped develop a platform that empowers college students facing emotional or financial hardship by providing tools to request and receive meaningful support.

### Research Assistant at Human Interaction Lab

Medford, MA

Tufts University

September 2024 - December 2024

- Contributed to Gailbot, a transcription API for generating Jeffersonian transcriptions with support for marking paralinguistic features in audio.
- Built a React-based web interface to expand user access, incorporating AWS EC2 for deployment and SQL for relational database management.

### Artificial Intelligence Engineering Intern

Bangalore, India

BLP Industry.AI

June 2024 - August 2024

- Built AI-powered solutions addressing key challenges in the manufacturing industry.
- Developed a workplace safety system using Python, OpenCV, and YOLO object detection.
- Created a custom image dataset for model training using annotation tools such as Labellmg.

### Technology Consulting Intern

Singapore

Ernst & Young

June 2023 - August 2023

- Revamped company website using newly developed skills in UX research and SEO.
- Supported development and governance of an AI HR chatbot using generative AI and machine learning on the Data & Analytics team.
- Contributed insights in client meetings and strengthened relationships with key partners, including the Infocomm Media Development Authority of Singapore.

## Skills

**Technical Development Skills:** Python (NumPy, Pandas, Matplotlib, Seaborn, scikit-learn), C, C++, Javascript, Typescript, HTML, CSS, PHP, React, MySQL, MongoDB, Git, Vercel

**Other Technical Skills:** Microsoft Office (Word, Powerpoint, Excel)

**Languages:** Proficient in Mandarin

**Other:** Club Water Polo (Captain, 2023 North Atlantic Division Second Team All League)